

## **GLOSSARY**

**ADFLUVIAL** -- A life history type in which spawning and rearing occur in streams, but most growth and maturation occur in lakes or reservoirs.

**ALEVIN** -- Newly hatched fish which remain in gravel until their yolk sacs have been resorbed.

**ALLELE** -- One of two or more alternate forms of a gene.

**ANADROMOUS FISH** -- Species that are hatched in freshwater, mature in saltwater, and return to freshwater to spawn.

**CASCADE** -- a series of small steep drops increasing the velocity of the stream.

**CRITICAL STOCK** -- A stock of fish experiencing production levels that are so low that permanent damage to the stock is likely or has already occurred.

**CULTURED STOCK** -- A stock that depends upon spawning, incubation, hatching, or rearing in a hatchery or other artificial production facility.

**DENDROGRAM** -- A graphic summary of the genetic relationships among populations. The horizontal distance at which the stock branches connect indicates the degree of similarity/dissimilarity. The longer the distance at which the branch points connect, the greater the average genetic differences among stocks.

**DEPRESSED STOCK** -- A stock of fish whose production is below expected levels based on available habitat and natural variations in survival levels, but above the level where permanent damage to the stock is likely.

**ELECTROPHORESIS** -- A process whereby charged molecules (such as DNA and enzymes) are separated in an electric field.

**ENDANGERED SPECIES ACT (ESA)** -- A 1973 Act of Congress that mandated that endangered and threatened species of fish, wildlife, and plants be protected and restored.

**ESCAPEMENT** -- Those fish that have survived all fisheries and will make up a spawning population.

**EVOLUTIONARILY SIGNIFICANT UNIT (ESU)** -- A definition of "species" used by the National Marine Fisheries Service in administering the Endangered Species Act. An ESU is a population (or group of populations) that (1) is reproductively isolated from other

conspecific population units, and (2) represents an important component in the evolutionary legacy of the species.

**EXTINCT STOCK** -- A stock of fish that is no longer present in its original range, or as a distinct stock elsewhere. Individuals of the same species may be observed in very low numbers, consistent with straying from other stocks.

**FINGERLING** -- Juvenile salmonids up to nine months of age and generally two to four inches in total length.

**FLUVIAL** -- A life history type in which spawning and early juvenile rearing occur in smaller tributaries, but most growth and maturation occur within mainstem rivers.

**FRY** -- Young salmonids that have emerged from the gravel and are up to one month in age.

**GENE** -- A specific unit of genetic material (DNA) that encodes the information for a single genetic trait.

**GENE POOL** -- The total variety and proportions of alleles within a population.

**GENETIC STOCK IDENTIFICATION (GSI)** -- A method that can be used to characterize populations of organisms based on the genetic profiles of individuals. The GSI process consists of a series of steps: (1) collect selected tissues from a representative sample of individuals from the population(s) under investigation; (2) develop genetic profiles for the individuals in each population by conducting electrophoresis of proteins or DNA from tissues of sampled individuals; (3) characterize each population by aggregating the individual genetic profiles and computing allele frequency distributions; and (4) conduct statistical tests using the allele counts characterizing each population to identify significantly different populations.

**GENOME** -- The total genetic composition of an individual. The complete genetic information possessed by an organism.

**GLIDE** -- A part of a river containing a smooth flow of water with an unbroken surface.

**GRADIENT** -- The amount of vertical drop a stream experiences over a given distance

**Shallow gradient** -- A length of stream with predominantly slow-moving pools and few, if any, riffles.

**Moderate gradient** -- A length of stream with a high proportion of riffles

**Steep gradient** -- A length of stream with a high proportion of cascades and waterfalls.

**HEADWATERS** -- The source of a stream or stream system.

**HEALTHY STOCK** -- A stock of fish experiencing production levels consistent with its available habitat and within the natural variations in survival for the stock.

**HYBRIDIZATION** -- The interbreeding of fish from two or more different stocks or species.

**INDEPENDENT TRIBUTARY** -- A small stream flowing directly into marine waters.

**KELT** -- A cutthroat, steelhead or other repeat-spawning salmonid which has completed spawning.

**LAKE INLET** -- The point where a stream flows into a lake.

**LAKE OUTLET** -- The point where a stream flows out of a lake.

**LIFE HISTORY** -- The events that make up the life cycle of an animal including migration, spawning, incubation, and rearing. Life history forms of bull trout/Dolly Varden include adfluvial, anadromous, fluvial, and resident.

**MAINSTEM** -- A major stream channel which is joined by numerous tributaries.

**MANAGEMENT UNIT** -- A stock or group of stocks which are aggregated for the purposes of achieving a desired spawning escapement objective.

**MIGRATION** -- The seasonal movement of an animal from one area to another.

**MIXED STOCK** -- A stock whose individuals originated from commingled native and non-native parents, and/or by mating between native and non-native fish (hybridization); or a previously native stock that has undergone substantial genetic alteration.

**NMFS** -- National Marine Fisheries Service. A branch of the National Oceanic and Atmospheric Administration, Department of Commerce whose responsibilities include administration of the Endangered Species Act for anadromous and marine fish.

**NATIVE STOCK** -- An indigenous stock of fish that has not been substantially impacted by genetic interactions with non-native stocks or by other factors, and is still present in all or part of its original range.

**NON-NATIVE STOCK** -- A stock that has become established outside of its original range.

**PRODUCTION TYPE** -- The method of spawning and rearing that produced the fish that constitute a stock.

**REDD** -- A fish's nest, where eggs are buried in gravels for incubation and hatching.

**RESIDENT** -- A life history type in which all life stages (e.g. spawning, rearing, growth, maturation) occur in small headwater streams, often upstream from impassable physical barriers.

**RIFFLE** -- A length of stream with shallow water, a gravel bottom and high water velocity which churns the surface of the water. Frequently used by salmonids for spawning.

**RM** -- River mile.

**SALMONID** -- Any member of the taxonomic family Salmonidae, which includes all species of salmon, trout, whitefish and char.

**SaSI** -- Salmonid Stock Inventory. A compendium of identified salmonid stocks and their status with information on stock origin and history and a description of the factors which affect stock status. Encompasses several salmonid species in Washington State and is not confined to salmon and steelhead.

**SASSI** -- Salmon and Steelhead Stock Inventory. A component of the Salmonid Stock Inventory.

**SMOLT** -- A juvenile anadromous salmonid which is undergoing the physiological and behavioral changes required to migrate from fresh water to salt water.

**STANDING CROP** -- The total amount (in numbers or weight) of fish in a given area at a given time.

**STREAM ORDER** -- A system for describing streams and their tributaries such that first-order streams are mainstems, second-order streams are major tributaries and third-and higher order streams are lesser tributaries. Headwater streams would be the highest order streams within a river basin.

**SPAWNING POPULATION** -- Synonymous with the term stock.

**STOCK** -- The fish spawning in a particular lake or stream(s) at a particular season, which to a substantial degree do not interbreed with any group spawning in a different place, or in the same place at a different season.

**STOCK ORIGIN** --The genetic history of a stock.

**STOCK STATUS** -- The current condition of a stock, which may be based on escapement, run-size, survival, or fitness level.

**TREND** -- The directional change in a time-series data set.

**TRIBUTARY** -- A smaller stream which flows into a larger stream.

**UNKNOWN STOCK** -- A stock for which there is insufficient information to identify stock origin or stock status with confidence.

**USFWS** -- U.S. Fish and Wildlife Service. A branch of the federal Department of Interior whose responsibilities include administration of the Endangered Species Act as it affects non-anadromous fish and steelhead, wildlife and plants.

**USFS** -- U. S. Department of Agriculture Forest Service.

**WDF** -- Washington Department of Fisheries.

**WDG** -- Washington Department of Game. Became the Washington Department of Wildlife in 1988.

**WDFW** -- Washington Department of Fish and Wildlife. Created by the merger of the Washington Department of Fisheries and the Washington Department of Wildlife in 1994.

**WDW** -- Washington Department of Wildlife.

**WILD STOCK** -- A stock that is sustained by natural spawning and rearing in the natural habitat, regardless of parentage (includes native).



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